

**STATE OF MAINE**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**Chapter 378**

**Variance Criteria for the Excavation of  
Rock, Borrow, Topsoil, Clay or Silt**

Variance Application



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## PART I. GENERAL INSTRUCTIONS

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This document is to be used when applying for a variance pursuant to Performance Standards for Excavations, 38 M.R.S.A. §490-E and Performance Standards for Rock Quarries, 38 M.R.S.A. §490-CC. The applicant must submit specific information for each variance request in accordance with "Chapter 378 Variance Criteria for the Excavation of Rock, Borrow, Topsoil, Clay or Silt and Performance Standards for the Storage of Petroleum Products".

#### **Section 1. Pre-submission**

A. Pre-application meeting (optional). The purpose of the pre-application meeting is to help the applicant to understand the variance application review process, to identify particular areas of concern, and to exchange information before commitment to a final design. The meeting may lead to a substantial reduction in processing time. To arrange a pre-application meeting contact the Mining Coordinator.

B. Pre-submission meeting (optional). A pre-submission meeting allows the department and applicant to follow up on issues raised at the pre-application meeting. The meeting is held when the application is ready for submission. Contact the Mining Coordinator concerning scheduling a pre-submission meeting.

C. Public informational meeting (mandatory). An applicant intending to file a variance application must hold a public informational meeting prior to filing that application. At least 10 days prior to the public informational meeting, notice of the informational meeting must be sent by certified mail to abutters and to the municipal office of the municipality(ies) where the project is located. At least 7 days prior to the informational meeting, notice must also be published once in a newspaper of general circulation in the area where the project is located. The notice must contain at least the following information:

- (1) Name, address and telephone number of the applicant.
- (2) Citation of the statutes or rules under which the application will be processed.
- (3) Location and summary description of the activity.
- (4) The date, time and place of the public informational meeting.

A certification signed by the applicant attesting that a public informational meeting was noticed and held in accordance with this section, including an estimate of the number of attendees at the meeting, must be submitted with any variance application.

D. Notice. Provide public notice of the application. The notice form, is included in Part IV of this application. A copy of this form or one containing identical information must be used to notify abutters, municipal officials, and local newspapers.

(1) Newspaper. Publish the notice once in a newspaper circulated in the area where the development is located. The notice must appear in the newspaper during the week prior to the date the application is filed with the department.

(2) Abutting property owners. Provide a copy of the notice to the owners of abutting property. Their names and addresses can be obtained from town tax maps or local officials. Abutters must receive notice during the week prior to the date the application is filed with the department.

(3) Municipal or plantation office. Provide a copy of the public notice together with a duplicate of the entire application to the appropriate town clerk or city clerk. The notice must be received during the week prior to the date the application is filed with the department.

D. Other.

(1) Application notes. Direct questions concerning application requirements to the project manager or, if a project manager has not yet been assigned, to the Mining Coordinator, Division of Land Resource Regulation (287-7810).

(a) Organization. Organize the application in the following manner.

(i) Use a completed copy of the Variance Application, contained in Part IV of this application, as the first page of the application.

(ii) Place a completed copy of the Notice of Intent to File and Notice Certification, after the completed copy of the Variance Application.

(b) Plan, drawing and map specifications. Plans, drawings and maps may be combined as long as all details are clearly shown. Adhere to the following specifications, unless variations are specifically approved prior to submission of the application:

- (i) Sheet size 24" X 36";
- (ii) Scale of 1" = 100';
- (iii) Maximum vertical exaggeration of 5X; and
- (iv) Folded to fit 8 1/2" by 11" folders for ease in filing.

(c) Professional assistance. For most variance applications, professional assistance is necessary to satisfactorily complete the application requirements. All plans, drawings and maps must be prepared by appropriate professionals. All work performed by a professional engineer or other licensed professional must be dated, stamped and signed by the professional. As used in this document, a "certified geologist" or "certified soil scientist", is a professional licensed pursuant to 32 M.R.S.A. §4901 et. seq.. A "registered engineer" is a professional licensed pursuant to 32 M.R.S.A. §1351 et. seq.. A "licensed site evaluator" is a professional licensed under authority established by 22 M.R.S.A. §42(3-A).

(d) Retain a copy. Retain a copy of the application, as filed with the department, in order to facilitate communications with the department's staff during the review process.

(2) Source material.

(a) Performance standards. Performance Standards for Excavations for Borrow, Clay, Topsoil or Silt, 38 M.R.S.A. §490-A to 490-M and Performance Standards for Rock Quarries, 38 M.R.S.A. §490-W to 490-EE. Available from the Bureau of Land and Water Quality (287-2111).

(b) Erosion and sedimentation control handbook. Maine Erosion and Sedimentation Control Handbook for Construction: Best Management Practices (March, 1991). Available from the Cumberland County SWCD, 381 Main Street, Suite 3, Gorham, Maine 04038 (839-7842).

(c) Stormwater management handbook. Stormwater Management for Maine: Best Management Practices (November 1995). Available from Bureau of Land and Water Quality

(d) Hydrology. Soil Conservation Service's TR-55 publication entitled "Urban Hydrology for Small Watersheds" (June, 1986); and TR-20 publication entitled "Computer Program for Project Formulation Hydrology" (May, 1983).

## **Section 2. Submission**

A. Fees. Attach the appropriate application fee, as listed below, to the variance application. Send the original application and 2 copies to: Department of Environmental Protection, Bureau of Land and Water Quality, 17 State House Station, Augusta, Maine 04333. Fees must be paid at the time the application is submitted to the department. Checks should be made payable to: Treasurer, State of Maine.

### **FEE SCHEDULE**

#### **LAND & WATER BUREAU - Effective July 1, 1997 to November 1, 1997** **Performance Standards for Excavations & Performance Standards for Quarries**

| <b>AIS code</b> | <b>description</b>   | <b>processing fee</b> |
|-----------------|--|-----------------------|
|                 | variance from excavation standards: general                          | 250                   |
|                 | variance from excavation standards: excavation below the water table | 500                   |
|                 | variance for externally drained pit                                  | 500                   |
|                 | variance from excavation standards: topsoil salvage                  | 125                   |
|                 | variance from quarry standards: general                              | 250                   |
|                 | variance from quarry standards: excavation below the water table     | 500                   |
|                 | variance for externally drained quarry                               | 500                   |
|                 | variance from quarry standards: topsoil salvage                      | 125                   |
|                 | variance from quarry standards: air blasts & ground vibration        | 125                   |

B. Timing of submission. Submit the application well in advance of the date of construction. The amount of time required for the application review process depends upon the scope of the activity, its environmental impacts, and the quality of the application. Processing timetables are established by the commissioner for each type of new permit or license issued by the department. 38 M.R.S.A. §344-B.

C. Correspondence and questions. Correspondence and questions concerning the application should be directed to the Mining Coordinator. The assigned application number should be included in all correspondence.

## **Section 3. Processing**

A. Acceptance review. Upon submission and payment of all applicable fees, the application is assigned a project number and given to a project manager. The project manager determines if the application is complete and acceptable for processing. Once this review is complete,

(1) The applicant will receive a notification, including the application number and the project manager's name, stating that the application is acceptable for processing; or

(2) The application will be returned with a letter stating that the application is not acceptable for processing as filed and identifying deficiencies in the application.

B. Application review. The project manager makes a recommendation for final action based upon his or her review of the application including knowledge gained from any site visit, and comments received from department staff, other agencies, or the public.

(1) If the application is determined acceptable for processing, the project manager may request additional copies for use by review agencies.

(2) Additional information may be requested. "Acceptance of an application as complete for review does not constitute a determination by the department on the sufficiency of that information and does not preclude the department from requesting additional information during processing." 38 M.R.S.A. §344 (in part).

In review of an application, the burden is on the applicant to prove that the development will not have an adverse environmental impact: it is not up to the department to prove that a development will have an adverse environmental impact.

**Section 4. Final action and appeal.** Depending on the nature of the development, a final decision on the application may be made, either by the Commissioner or by the Board of Environmental Protection. A draft copy of the Findings of Fact and Order is made available, upon request, for review by all interested parties at least 5 working days prior to the final action by the commissioner, or 15 working days prior to final action by the board. Persons aggrieved by a decision may appeal the decision within 30 days following final action.

If an application is approved, a permit is issued and sent to the applicant. The applicant must become familiar with any conditions placed on the approved development. Failure to comply with conditions of approval may lead to action by department enforcement staff, including fines and revocation of the permit.

Placeholder for the Variance Applications Chart

**CHAPTER 378: VARIANCE CRITERIA FOR THE EXCAVATION OF ROCK, BORROW, TOPSOIL, CLAY OR SILT AND PERFORMANCE STANDARDS FOR THE STORAGE OF PETROLEUM PRODUCTS**

**Summary:** This chapter describes the standards and submissions required for evaluating variance applications under 38 MRSA §490-D, Performance Standards for Excavations and 38 MRSA §490-Z, Performance Standards for Quarries. It also includes the performance and design standards for the onsite storage of petroleum products.

- 1. Applicability.** This rule provides procedures for variances from the performance standards for the mining of rock, borrow, topsoil, clay, or silt as set forth in 38 MRSA §490-D and 490-Z. Certain standards are not subject to variance, as provided in §§490-D and 490-Z. The rule also provides the performance and design standards for the onsite storage of petroleum products.
- 2. Approval standards for variances.** The Department shall approve a variance when it finds that the applicant has demonstrated that the proposed activity meets the following standards.
  - A. Lower water quality.** The activity will not violate any state water quality law, including those governing the classification of the State's waters.
  - B. Interfere with natural groundwater flow.** The activity will not adversely interfere with the natural flow of groundwater.
  - C. Existing uses.** The activity will not adversely interfere with existing uses.
  - D. Public safety.** The activity will not adversely affect the health, safety and general welfare of the public.
  - E. Flooding.** The activity will not unreasonable cause or increase the flooding of adjacent properties or create an unreasonable flood hazard to any structure.
  - F. Soil erosion.** The activity will not cause unreasonable erosion of soil.
  - G. Harm to habitats.** The activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic habitat, travel corridor, fresh water, estuarine, or marine fisheries, or other aquatic life.
- 3. Submissions.** This section outlines submission requirements related to the variance approval standards described in Section 2, above.
  - A. Separation of less than five feet from seasonal high water table.** If any part of the excavation is to be less than five feet from the seasonal high water table, the following submissions are required.
    - (1) A plan of the site showing the locations of test pits, borings, monitoring wells, seismic lines, or other subsurface investigations undertaken to establish the elevation of the seasonal high water



- table. If these investigations have intercepted the seasonal high water table, or otherwise provide evidence of its location, the plan must show the elevations of the seasonal high water table at those points. The contours of the seasonal high water table must be shown throughout the areas in which excavation is proposed to be less than five feet from the seasonal high water table.
- (2) Logs and other supporting documentation of the subsurface investigations conducted to establish the elevation of the seasonal high water table.
  - (3) A plan for regular monitoring of water table elevations at representative locations within the excavation and in the immediate vicinity, and regular reporting of data to the department, at intervals to be determined by the department. During each year of pit operation, water table elevations must be monitored biweekly during April, May, and June, and once in September, December, and March. At least one year of background water level data must be obtained from these wells prior to any excavation to within less than five feet of the seasonal high water table.
  - (4) The department reserves the right to require more or less frequent monitoring of water table elevations if, in the opinion of the department, such monitoring is necessary to evaluate the impact of the excavation on water supply wells or protected natural resources. Cases in which more or less monitoring might be required include the following:
    - (a) The department may, at its discretion, require less frequent monitoring of water table elevation if it determines that a statistical analysis of the data shows no evidence of unanticipated changes in water table elevation.
    - (b) The department may require resumption of the original frequency, or substitute another frequency, in the event of evidence of declining water quality in areas impacted by the excavation or changes in water table elevation not anticipated in the study submitted to meet the requirements of this variance.
    - (c) The use of pre-existing data shall be subject to approval by the department. The applicant shall discuss the manner and time in which the data were acquired, the analytical or investigative methods used and any other factors relevant to the quality and applicability of the data.

**B. Excavation into groundwater.** If any part of the proposed excavation will be below the elevation of the seasonal high water table, the following submissions are required in addition to the submissions required under subsection A above.

- (1) A plan of the site showing the estimated post-development water table contours. This plan must show, at a minimum, all areas in which the elevation of the water table is likely to be impacted by the development, and must specifically address the potential impact on any pre-development water supply wells or protected natural resources in the vicinity of the excavation.
- (2) Measurements of the safe yield and water quality of any water supply well within that area in which the elevation of the water table will be impacted by the development. For the purposes of this rule, "safe yield" is defined as the amount of water which can be withdrawn from a well without producing adverse effects on the quality or quantity of water available to that well, protected natural resources, or other users of groundwater.

- (3) Provisions for regular analysis of the water table data for the site, for the purpose of comparing the data to the estimated post-development water table. This analysis must be submitted to the department on an annual basis, unless another interval is specifically required by the department, until the department determines that reclamation of the excavation is complete.
- (4) Provisions for quarterly measurement of groundwater quality in the vicinity of the excavation. Water quality of upgradient and downgradient wells must be measured for at least the following parameters: iron, manganese, gasoline range organics (gro), diesel range organics (dro), pH, and specific conductivity. If explosives are used in the excavation, the applicant must also monitor levels of nitrate or other applicable parameters which are likely residues of explosives. At least one year of background data must be obtained from these wells prior to any excavation in the area proposed for excavation below the water table.
- (5) The department reserves the right to require more or less monitoring parameters if, in the opinion of the department, such monitoring is necessary to evaluate the impact of the excavation on water supply wells or protected natural resources. Cases in which more or less monitoring might be required include the following:
  - (a) The Department may, at its discretion, reduce the list of monitored parameters if it determines that a statistical analysis of the data shows no evidence of declining groundwater quality.
  - (b) Cases in which such additional parameters might be required include, but are not limited to: evidence of declining water quality in areas impacted by the excavation; proximity of the excavation to a known contaminant source, such as a landfill, hazardous waste site, engineered septic system, or waste discharge site.
  - (c) The use of pre-existing data shall be subject to approval by the department. The applicant shall discuss the manner and time in which the data were acquired, the analytical or investigative methods used and any other factors relevant to the quality and applicability of the data.

**C. Reclamation requirements for excavation activities conducted below the seasonal high water table.** In the event of excavation below the seasonal high water table, the operator of the mining activity must reclaim the affected area as a pond according to the following standards.

- (1) The water supply to the pond must be sufficient to maintain the approximate water elevation specified in the design of the pond under normal circumstances. The bottom of the pond must be undulating to provide a variety of water depths.
- (2) In order to provide suitable conditions for safety and egress, shallow areas of less than 3 feet in water depth must exist along the shoreline. These areas must be graded to a slope no steeper than 4H to 1V.
- (3) To increase the pond's productivity, the shoreline must be irregular in shape.
- (4) A pond may not be smaller than one-half acre.

**D. Externally drained pits.** If any area of the excavation drains externally at any time during the development or use of the site, a plan and narrative detailing the specific erosion control measures and stormwater management system to be used in that area must be submitted for review and approval. The following standards and submission requirements apply.

- (1) Submit a plan of the affected land, at a scale and contour interval to be determined by the department, showing all areas to be disturbed as a result of the development, including but not limited to all buildings, locations of fixed processing facilities, areas of excavation, roads, and stockpile areas, and existing and proposed contours. Each plan must show the on and off-site watershed and sub-watershed boundary flow lines.
- (2) If any portion of the working pit will not be naturally internally drained at any time during the development of the site, the following calculations must be provided.
  - (a) Pre-excavation stormwater calculations for 2-, 10-, and 25-year, 24-hour storms including runoff curve numbers, time of concentration, and travel times for each sub-watershed.
  - (b) Post-reclamation, site operation and phased stormwater calculations for 2-, 10-, and 25-year, 24-hour storms including runoff curve numbers, time of concentration, and travel times for each sub-watershed.
  - (c) The basin storage values and sizing calculations must be provided, including the stage-storage curves and outlet velocities for each detention basin.
  - (d) A detail sheet showing the outlet and spillway sizing calculations for each detention basin including a cross sections of the basin showing and identifying the water level elevations for the 2-, 10-, and 25-year, 24-hour storms.
  - (e) A detail sheet showing the plan and cross sectional views of the detention basin(s), outlet structure(s), emergency overflow structure(s) associated riprapped areas, and other details necessary for construction.

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NOTE: The stormwater quantity calculations above must be in accordance with acceptable engineering practice as outlined in "Stormwater Management for Maine: Best Management Practices (November 1995), unless otherwise approved or required by the Department.

Acceptable stormwater methodology and model, but are not limited to: U.S. Department of Agriculture, Soil Conservation Service, Technical Releases entitled "TR-20 - Computer Program for Project Formulation - Hydrology," Second Edition, May 1983 or b) "TR-55 - Urban Hydrology for Small Watersheds," Second Editions, June 1986 and TR-55 Microcomputer Program, Version 2.0, January 15, 1990, and US Army Corps of Engineers, "HEC-1 Flood Hydrology Package".

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- (3) Easements covering all areas of flow or areas to be flooded during storms up to and including the 25-year, 24-hour storm, on properties not owned or controlled by the developer, must be secured from all affected property owners and recorded at the appropriate county registry of deeds.

- (4) If a detention basin is proposed as a stormwater management system, it must be designed according to the following standards.
- (a) The outlet structure(s) of each detention basin must be designed to control 24-hour storms of 2-, 10-, and 25-year frequencies. Each detention basin must be constructed with an emergency spillway designed to independently convey the unrouted runoff from a 25-year, 24-hour storm event.
  - (b) Concentrated flows may not discharge to an off-site area that has not received concentrated flows before. Pre-excavation flow conditions must be maintained to the maximum practical extent. All areas must be protected from erosion due to stormwater flow by suitable means.
  - (c) No part of the basin may be located within the bounds of a wetland, stream, river or brook (intermittent or perennial), as defined at 38 M.R.S.A. §480-B, unless approved by the department pursuant to the Natural Resources Protection Act.
  - (d) The minimum elevation of the top of the settled basin embankment must be at least one foot above the water surface in the detention basin with the emergency spillway flowing at design depth.
  - (e) Emergency spillways must be located on undisturbed original non-fill soil wherever practical. If only a fill soil is available, a spillway may be allowed through a berm if the following standards are met.
    - (i) No emergency spillway may be located within 20 feet horizontal of the principal spillway.
    - (ii) Each emergency spillway must be riprapped with a specified design d50 (provide calculations) and underlain with a geotextile (non-woven) and a well graded gravel filter.
- (5) The design of piped or open channel systems must be based on a 10-year, 24-hour precipitation event without overloading or flooding beyond channel limits, except when the piped system is overloaded to provide detention or retention of the stormwater runoff.
- (6) The proposed stormwater management system and plans must be signed and sealed by a Maine registered professional engineer qualified to undertake the design.
- (7) Externally drained pits must meet the following standards for stormwater quality.
- (a) Stormwater discharges from externally drained sites may not have an unreasonable adverse impact on cold-water fisheries, as determined by the department.
  - (b) Nothing in this paragraph may be construed to supersede or replace the Erosion and Sedimentation Control Standard established in 38 M.R.S.A. § 490-D(8).

(c) Stormwater from the externally drained portion of an operation regulated under 38 M.R.S.A. §490-B or 38 M.R.S.A. §490-X must meet the stormwater quality standards identified below.

- (i) If the externally drained portion of the operation is located in the watershed of a lake most at risk from new development, and includes 20,000 square feet or more of impervious area or 5 acres or more of disturbed area, then the externally drained portion of the operation must meet the stormwater quality standards identified at 06-096 CMR 500.4(A)(1)(a)(i) and the basic stabilization measures standard. These standards are further described at CMR 500.4(A)(2)(a)(c) and (d).
- (ii) If the externally drained portion of the operation is located in a sensitive or threatened lake watershed, and includes more than 3 acres of impervious area or more than 5 acres of disturbed area, then the externally drained portion must provide stormwater quality treatment sufficient to remove 40% of the total suspended solids and must meet the basic stabilization measures standard described at 06-096 CMR 500.4(A)(2)(d). If the externally drained portion of the operation is located in a sensitive or threatened lake watershed, and includes three acres or less of impervious area and 5 acres or less of disturbed area, then the externally drained portion must meet the basic stabilization measures standard described at 06-096 CMR 500.4(A)(2)(d).
- (iii) If the externally drained portion of the operation is located in the watershed of a river, stream or brook most at risk, includes 20,000 square feet or more of impervious area or 5 acres or more of disturbed area, and drains to the waterbody at or above a public water supply intake, then the externally drained portion of the operation must meet the sliding scale TSS standard and the basic stabilization measures standard described at 06-096 CMR 500.4(A)(2)(b) and (d).
- (iv) If the project is located in the watershed of a river, stream or brook identified as a sensitive or threatened region or watershed, includes one acre or more of impervious area or 5 acres or more of disturbed area, and drains to the waterbody at or within two miles above a public water supply intake, the project must meet the basic stabilization measures standard described at 06-096 CMR 500.4(A)(3)(d).

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NOTE: Terms used in paragraph 7, such as "impervious area", "disturbed area", and "public water supply" are defined in 06-096 CMR 500. Areas identified as "most at risk from new development" or "sensitive or threatened region or watershed" are listed in 06-096 CMR 502.

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- (d) Construction projects at industrial facilities for which a federal stormwater permit application has been made or construction projects at facilities for which stormwater is regulated under an existing federal discharge permit do not require review. See 38 M.R.S.A. § 420-D(7)(D).

**E. Larger working pits.** The financial assurance provisions below apply to any excavations with a working pit larger than 10 acres. Financial assurance is designed to ensure that the operator satisfactorily meets all requirements of 38 M.R.S.A. § 490-D and 38 M.R.S.A. §490-Z. Financial assurance must cover the affected land.

- (1) The amount of financial assurance required is determined by the department. The type of financial assurance must be as described under this rule. The amount of financial assurance must be, at a minimum, the estimated cost to a third party for completing the reclamation for all disturbed areas, and all areas expected to be disturbed within the upcoming year.
- (2) The permittee shall pay into a reclamation fund established for the benefit of the department as follows.
  - (a) The reclamation fund must be funded by the permittee through cash deposits, letter of credit, or surety.
  - (b) The initial deposit for reclamation costs, identified above, must be made prior to site disturbance. Subsequent payments must be made on or prior to the next subsequent anniversary date of permit issuance, and annually thereafter.
  - (c) Annual deposits or increases in the required reclamation fund amount must be made from the beginning of the operation to the end of the operation and until the successful completion of all reclamation activities. Without limitations changes in the amount in the fund may be required by the department due to modifications of the permit, changed financial conditions or site conditions, technology changes, inflation, anticipated changes in mining activity and corrective action, and reclamation. The permittee shall annually report to the department, subject to the department's approval, an estimate of cost changes as provided in this rule. The permit remains in effect only if all required deposits or increases are made within 30 days of the due date provided in this rule. The obligation to make deposits or adjust the letter of credit or bond amount ceases only upon approval from the department.
  - (d) When computing the annual inflation adjustment for reclamation, the department and the permittee must use the Implicit Price Deflator for Gross National Product as published by the U.S. Department of Commerce in "Survey of Current Business".
  - (e) The department may, at its discretion, grant approval for the withdrawal by the permittee of portions of the reclamation fund upon the permittee's verification that the sums authorized have been used solely for their intended, and department-authorized, purposes provided the remaining funds are sufficient to cover expenses required by this rule. In any event, 25% of the total financial assurance obligations must be retained in the trust fund until all reclamation is completed.
  - (f) If a permit is suspended, revoked, or not renewed, the permittee must continue to make deposits according to this rule.
  - (g) The financial assurance cost estimates must be made in U.S. dollars in accordance with established estimating practices and must not incorporate any salvage value that may be realized by the sale of materials, wastes, site structures or equipment, land, or other assets associated with the site.
  - (h) If a permittee fails to post required financial assurance, the department must issue a notice of violation to the permittee.

(3) The following requirements apply to all financial institutions issuing a letter of credit under this rule.

- (a) The letter of credit must be unconditional, irrevocable, issued for a period of at least one year, and otherwise in a form satisfactory to the department. At least 90 days before the expiration date, the financial institution issuing the letter of credit must notify the permittee and the department if the letter of credit will not be renewed for an additional one year period, and the letter of credit must so provide. If the permittee is unable to obtain a letter of credit that complies with this rule prior to 45 days before the expiration of the current letter of credit, the department shall immediately draw all funds under the letter of credit and deposit those in the reclamation fund. The permittee shall also take all other measures necessary to maintain the letter of credit as provided herein and to assure such letters do not expire unless replaced with another duly qualified letter.
- (b) The letter of credit must be issued so as to be drawn upon unconditionally by the department to meet the terms of the trust fund or otherwise at the call of the department.
- (c) The financial institution issuing the letter of credit shall meet the following financial criteria, as reviewed no less often than annually by the department:
  - (i) It has assets of not less than \$50 million.
  - (ii) It has Tier 1 leverage capital, as defined by its primary federal regulator, of not less than 6% of total assets.
  - (iii) Its unsecured long-term debt, if rated, is rated A or better by Moody's Investor Service or A or better by Standard and Poor's.
  - (iv) Its parent company, if any, has Tier 1 leverage capital, as defined by its primary federal regulator, of not less than 5% of total assets on a consolidated basis.
  - (v) Its parent company's unsecured long-term debt, if rated, is rated Baa or better by Moody's Investors Service or BBB or better by Standard and Poors.
  - (vi) The proposed letter of credit must be submitted to the department for review and approval.
  - (vii) In the event the department delivers to the financial institution a certificate so requesting and signed by the department, the financial institution shall draw down the full amount available under the letter of credit specified in the certificate and shall deposit to the department's reclamation fund the amount drawn down.

In the event that an issuer of a letter of credit ever fails to meet these criteria, the department shall immediately order the permittee to replace it with a properly qualifying letter of credit, failing which the department shall immediately call the letter of credit.

(4) The following requirements apply to all surety bonds provided under this rule.

- (a) The bond must be issued for a period of at least one year and in a form acceptable to the department. At least 90 days before the expiration date, the surety company issuing the

bond must notify the permittee and the department if the bond will not be renewed for an additional one year period. The text of the bond must include a provision for notice of cancellation. If the bond will not be renewed, the permittee shall immediately replace it.

- (b) The bond must be issued so as to be drawn upon unconditionally by the department.
  - (c) The surety must be U.S. Treasury listed and licensed to do business in the State of Maine.
  - (d) The surety issuing the bond must have its unsecured long-term debt rated "A" or better by Standard and Poors or "A" or better by Moody's Investor Service.
  - (e) The department will not accept the bond of a surety company which has failed or delayed in making payments on a forfeited surety bond.
  - (f) The proposed bond must be submitted to the department for review and approval.
  - (g) In the event that an issuer of a bond ever fails to meet these requirements, the permittee must replace it with a properly qualifying surety.
  - (h) In the event the department delivers to the surety company a certificate so requesting and signed by the department, the surety company must pay the full amount available under the bond specified in the certificate and deposit that sum to the department's reclamation fund.
- (5) The following requirements apply when releasing financial assurance.
- (a) When requesting close-out or release of financial assurance, the permittee must notify the department. The department shall make an inspection of the area, and if it finds that reclamation has been properly completed, in accordance with the requirements of these rules, applicable laws and the terms and conditions of the permittee's permit, it must notify the permittee.
  - (b) When the department makes a determination to release funds, it must notify the financial institution or surety company and the permittee in writing of the decision. At that time, the department must supply the financial institution or surety company and permittee with written approval to transfer the excess funds or to close the account. The department does not release the permittee from any reclamation or corrective action requirements or third party liability as a result of releasing any funds.
  - (c) If at any time the department finds that reclamation of the affected area is not proceeding in accordance with these rules, applicable laws and the permit, the department under the authority of 38 M.R.S.A. § 490 may initiate forfeiture proceedings against the fund filed by permittee.

**F. Side slopes steeper than 2.5H to 1V.** These requirements apply to all externally drained pits. They may apply to internally drained pits if the department determines that there is a reasonable possibility of adverse impact on adjacent properties or protected natural resources due to failure of a slope steeper than 2.5-to-1. The slope stability analysis must consist of the following components.



- (1) A detail sheet showing the cross section of the slope proposed to be graded to a slope steeper than 2.5H to 1V. The cross section must show the slope's soil stratigraphy (i.e., the different soil layers in the slope), the location of springs or seeps, and the location of any perched water tables.
- (2) For each soil layer, a description of the soil (e.g. fine sand or coarse gravel), the thickness of the soil layer, the soil unit weight, if angle of internal friction (if a granular soil), and the soil cohesive shear strength (if a cohesive soil).
- (3) The calculations for the slope stability analysis must show the slope's safety factor against failure.
- (4) Photographs showing the existing condition of the slope.

If the department determines that there is not a reasonable possibility of adverse impact on adjacent properties or protected natural resources due to failure of a slope steeper than 2.5-to-1 in an internally drained pit, the applicant shall notify the department and include in this notification a drawing showing the location of the proposed steeper slopes and a narrative describing how those slopes will be stabilized.

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NOTE: In most cases the slope will have only one or two soil layers. The applicant can obtain values for unit weight, angle of internal friction, and cohesive shear strength from laboratory tests or from data published in geotechnical textbook design manuals.

NOTE: The applicant can do the analysis by hand calculation, by computer, or (for limited cases) by using published stability charts. For analyses using soil properties obtained from laboratory tests, the slope factor of safety should be greater than 1.10. For analyses using soil properties obtained from general data in reference books, the slope factor of safety should be greater than 1.25.

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**G. Excavating closer than 100 feet to a public road.** If any part of the excavation will be less than 100 feet to a public road, the following information must be submitted to support the variance application.

- (1) A plan showing the location of the existing slope, the road and its associated right-of-way.
- (2) Evidence that adequate provisions for safety and visual screening will be made and maintained, if applicable.
- (3) Photographs showing the condition of the existing natural buffer between the public road and the excavation.

**4. Terms and conditions.** Unless otherwise stated in the variance approval, the operation and reclamation of a mining operation is subject to the following standard conditions.

#### **A. Standard conditions**

- (1) Approval of variation from plans. The granting of this variance approval is dependent upon and limited to the proposals and plans contained in the variance application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation. Any such variation undertaken without approval of the department is in violation of 38 M.R.S.A. § 483-A and is subject to penalties under 38 M.R.S.A. § 349.
- (2) Initiation of development within two (2) years. If the construction or operation of the activity is not begun within two years, this variance approval shall lapse and the applicant may reapply to the department. The applicant may not begin construction or operation of the development until a new variance approval is granted. Re-applications must state the reasons why the development was not begun within 2 years from the granting, and may include information submitted in the initial variance application by reference.
- (3) Approval shown to contractors and agents. Work done by a contractor or agent of the applicant may not begin before the contractor or agent has been provided with a copy of this variance approval.
- (4) Compliance with all terms and conditions of approval. The applicant shall submit all reports and information requested by the department to demonstrate compliance with the terms and conditions of this approval.

**B. Special conditions.** In addition to the standard conditions, the department may, as a term or condition of the variance approval, establish any reasonable requirement deemed necessary to ensure that the excavation or quarry operation meets the licensing criteria of 38 MRSA §490-D and 490-Z. Such conditions must address themselves to specifying particular means of satisfying minor or easily corrected problems, or both, and may not substitute for or reduce the applicant's burden to show that each of the licensing criteria of the 38 MRSA §490-D and 490-Z has been met.

AUTHORITY: 38 M.R.S.A. Section 490-E  
38 M.R.S.A. Section 341-D

EFFECTIVE DATE: August 21, 1997

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#### **NOTE**

*The Performance and Design Standards for the Storage of Petroleum Products has not been included in this application package since these standards are not related to the variance process. For a complete copy of Chapter 378, please contact the Bureau of Land & Water Quality at (207) 287-2111.*

Placeholder for the Variance Application Form

## NOTICE OF INTENT TO FILE

Please take notice that \_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Telephone # of Applicant/Agent)

)  
is intending to file a variance application with the Maine Department of Environmental Protection pursuant to the provisions of (*Performance Standards for Excavations, 38 M.R.S.A. §490-E or Performance Standards for Rock Quarries, 38 M.R.S.A. §490-CC*) on or about \_\_\_\_\_

\_\_\_\_\_  
(anticipated filing date)

The application is for \_\_\_\_\_  
(summary of project)

\_\_\_\_\_  
\_\_\_\_\_

at the following location:

\_\_\_\_\_  
(project location)

\_\_\_\_\_

A request for a public hearing or a request that the Board of Environmental Protection assume jurisdiction over this application must be received by the Department, in writing, no later than 20 days after the application is found by the Department to be complete and is accepted for processing. Public comment on the application will be accepted throughout the processing of the application.

The application will be filed for public inspection at the Department of Environmental Protection's office in Augusta during normal working hours. A copy of the application may also be seen at the municipal offices in

\_\_\_\_\_, Maine.  
(town)

Written public comments may be sent to the Department of Environmental Protection, Bureau of Land and Water Quality, 17 State House Station, Augusta, Maine 04333.

**NOTICE CERTIFICATION**

By signing below, the applicant (or authorized agent) certifies that he or she has

1. Published a Notice of Intent to File once in a newspaper circulated in the area where the project site is located within thirty days prior to the filing of the application;
2. Sent by certified mail a completed copy of the Notice of Intent to File to the owners of the property abutting the land upon which the project site is located within thirty days prior to the filing of the application;
3. Sent by certified mail a completed copy of the Notice of Intent to File and filed a duplicate of this application with the town clerk or city clerk of the municipality(ies) where the project is located; and
4. Provide a copy of the notice with this application.

|           |    |                  |
|-----------|----|------------------|
|           | of |                  |
| Signature |    | Applicant/Agent* |
| Date      |    |                  |

\_\_\_\_\_  
Print name and title of Applicant/Agent\*

\*If signature is other than that of the applicant, attach letter of agent authorization signed by applicant.